Amendments to the Claims

1. (**Canceled**)

2. (**Currently Amended**) A method of effecting an improvement in a standard marker of renal function in a mammal afflicted with acute renal failure, the method comprising administering to said mammal a therapeutically effective amount of an OP/BMP renal therapeutic agent comprising a polypeptide comprising a sequence at least 70% homologous to the C terminal seven-cysteine domain of human OP-1, the sequence of the C terminal seven-cysteine domain of human OP-1 being set forth at residues 330-431 of human OP-1, wherein said renal therapeutic agent:

   (a) induces chondrogenesis in an ectopic bone assay; or

   (b) prevents, inhibits, delays or alleviates loss of renal function resulting from acute renal failure in an animal model of acute renal failure;

thereby effecting an improvement in a standard marker of renal function in the mammal afflicted with acute renal failure.

3-4. (**Canceled**)

5. (**Previously Presented**) The method of claim 2 or 53, wherein said renal therapeutic agent comprises a polypeptide consisting of at least a C-terminal cysteine domain of a protein selected from the group consisting of a pro form, a mature form, and a soluble form of a polypeptide selected from the group consisting of OP-1, OP-2, OP-3, BMP2, BMP3, BMP4, BMP5, BMP6, and BMP9.

6. (**Currently Amended**) The method as in claim 5, wherein said renal therapeutic agent comprises a polypeptide consisting of at least a C-terminal cysteine domain of a protein selected from the group consisting of a pro form, a mature form, and a soluble form of human OP-1.

7. **(Canceled)**

8. **(Currently Amended)** The method of claim 2, wherein said polypeptide has at least 75% homology with an amino acid sequence of a seven-cysteine domain of human OP-1.

9. **(Currently Amended)** The method of claim 2, wherein said polypeptide has at least 80% homology with an amino acid sequence of a seven-cysteine domain of human OP-1.

10. **(Canceled)**

11. **(Currently Amended)** The method of claim 53, wherein said polypeptide has at least 65% identity with an amino acid sequence of a seven-cysteine domain of human OP-1.

12. **(Currently Amended)** The method of claim 53, wherein said polypeptide has at least 70% identity with an amino acid sequence of a seven-cysteine domain of human OP-1.

13. **(Canceled)**

14. **(Currently Amended)** The method of claim 2 or 53, wherein said renal therapeutic agent is selected from the group consisting of human osteogenic proteins and human bone morphogenic proteins.

15. **(Currently Amended)** The method of claim 2 or 53, wherein serial determination of BUN in said mammal indicates a rate of increase in BUN of at least 2 to 4 mmol/L/day (5 to 10 mg/dL/day).

16. **(Currently Amended)** The method of claim 2 or 53, wherein serial determination of BUN in said mammal indicates a rate of increase in BUN of at least 4 to 8 mmol/L/day (10 to 20 mg/dL/day).

17. (**Currently Amended**) The method of claim 2 or 53, wherein serial determination of serum creatinine in said mammal indicates a rate of increase in serum creatinine of at least 20 to 40 μmol/L/day (0.25 to 0.5 mg/dL/day).

18. (**Currently Amended**) The method of claim 2 or 53, wherein serial determination of serum creatinine in said mammal indicates a rate of increase in serum creatinine of at least 40 to 80 μmol/L/day (0.5 to 1.0 mg/dL/day).

19. (**Currently Amended**) The method of claim 2 or 53, wherein said mammal is afflicted with ~~a condition selected~~ acute renal failure caused by a ~~from the group consisting of~~ pre-renal ~~causes~~ cause ~~of acute renal failure~~, a post-renal ~~causes~~ cause ~~of acute renal failure~~, ~~and~~ or an intrinsic renal ~~causes~~ cause ~~of acute renal failure~~.

20. (**Currently Amended**) The method of claim 19, wherein said mammal is afflicted with acute renal failure caused by a pre-renal cause ~~of acute renal failure~~ selected from the group consisting of decreased cardiac output, hypovolemia, volume redistribution, and altered vascular resistance.

21. (**Withdrawn - Currently Amended**) The method of claim 19, wherein said mammal is afflicted with acute renal failure caused by a post-renal cause ~~of acute renal failure~~ selected from the group consisting of ureteral, pelvic and bladder obstructions.

22. (**Withdrawn - Currently Amended**) The method of claim 19, wherein said mammal is afflicted with acute renal failure caused by an intrinsic renal cause ~~of acute renal failure~~ selected from the group consisting of abnormalities of the vasculature, abnormalities of the glomeruli, acute interstitial nephritis, intratubular obstruction, renal artery occlusion and acute tubular necrosis.

23. (**Currently Amended**) The method of claim 2 or 53, wherein said mammal is a kidney transplant recipient.

24. (**Currently Amended**) The method of claim 2 or 53, wherein said mammal possesses only one kidney.

25. (**Withdrawn - Currently Amended**) The method of claim 2 or 53, wherein said administration is oral.

26. (**Currently Amended**) The method of claim 2 or 53, wherein said administration is parenteral.

27. (**Currently Amended**) The method of claim 2 or 53, wherein said administration is intravenous.

28. (**Withdrawn - Currently Amended**) The method of claim 2 or 53, wherein said administration is intraperitoneal.

29. (**Withdrawn - Currently Amended**) The method of claim 2 or 53, wherein said administration is into the renal capsule.

30. (**Withdrawn - Currently Amended**) The method of claim 26, wherein a stent has been implanted into said mammal for said administration.

31. (**Withdrawn - Currently Amended**) The method of claim 30, wherein said stent is an intravenous stent.

32. (**Withdrawn - Currently Amended**) The method of claim 30, wherein said stent is an intraperitoneal stent.

33. **(Withdrawn - Currently Amended)** The method of claim 30, wherein said stent is a renal intracapsular stent.

34. **(Withdrawn - Currently Amended)** The method of claim 26, wherein said administration is by an implanted device.

35. **(Currently Amended)** The method of claim 2 or 53, wherein said administration is daily for a period of at least about one week.

36. **(Currently Amended)** The method of claim 2 or 53, wherein said administration is at least once a week for a period of at least about one month.

37. **(Currently Amended)** The method of claim 2 or 53, wherein said renal therapeutic agent is administered at a dosage of about 0.01-1000 μg/kg body weight of said mammal.

38. **(Currently Amended)** The method of claim 37, wherein said renal therapeutic agent is administered at a dosage of about 0.1-100 μg/kg body weight of said mammal.

39-52. **(Canceled)**

53. **(Previously Amended)** A method of effecting an improvement in a standard marker of renal function in a mammal afflicted with acute renal failure, the method comprising administering to said mammal a therapeutically effective amount of an OP/BMP renal therapeutic agent comprising a polypeptide comprising a sequence at least 60% identical to the C terminal seven-cysteine domain of human OP-1, the sequence of the C terminal seven-cysteine domain of human OP-1 being set forth at residues 330-431 of human OP-1, wherein said renal therapeutic agent:

(a) induces chondrogenesis in an ectopic bone assay; or

(b) prevents, inhibits, delays or alleviates loss of renal function resulting from acute renal failure in an animal model of acute renal failure;

thereby effecting an improvement in a standard marker of renal function in the mammal afflicted with acute renal failure.

54. **(Previously Presented)** The method of claim 53, wherein the standard marker of kidney function is a rate of increase in BUN levels, rate of increase in serum creatinine, static measurement of BUN, static measurement of serum creatinine, glomerular filtration rate (GFR), ratio of BUN/ creatinine, serum concentration of sodium (Na+), urine/plasma ratio for creatinine, urine/plasma ratio for urea, urine osmolarity, or daily urine output.

55. **(Previously Presented)** The method of claim 2, wherein the standard marker of kidney function is a rate of increase in BUN levels, rate of increase in serum creatinine, static measurement of BUN, static measurement of serum creatinine, glomerular filtration rate (GFR), ratio of BUN/creatinine, serum concentration of sodium (Na+), urine/plasma ratio for creatinine, urine/plasma ratio for urea, urine osmolarity, or daily urine output.

56. **(Previously Presented)** The method of claim 2, wherein administration of the OP/BMP renal therapeutic agent delays the need for, or reduces the frequency of, dialysis treatments of the mammal afflicted with acute renal failure.

57. **(Previously Presented)** The method of claim 53, wherein administration of the OP/BMP renal therapeutic agent delays the need for, or reduces the frequency of, dialysis treatments of the mammal afflicted with acute renal failure.

58. **(Previously Presented)** A method of effecting an improvement in a standard marker of renal function in a mammal afflicted with acute renal failure, the acute renal failure being one arising from a pre-renal cause, the method comprising administering to said mammal a therapeutically effective amount of an OP/BMP renal therapeutic agent comprising a

polypeptide comprising a sequence at least 60% identical or 70% homologous to the C terminal seven-cysteine domain of human OP-1, the sequence of the C terminal seven-cysteine domain of human OP-1 being set forth at residues 330-431 of human OP-1, wherein said renal therapeutic agent:

(a) induces chondrogenesis in an ectopic bone assay; or

(b) prevents, inhibits, delays or alleviates loss of renal function resulting from acute renal failure in an animal model of acute renal failure;

thereby effecting an improvement in a standard marker of renal function in the mammal afflicted with acute renal failure arising from a pre-renal cause of acute renal failure.

59. **(Currently Amended)** The method of claim 58, wherein the pre-renal cause of acute renal failure is selected from decreased cardiac output, hypovolemia, volume redistribution, and altered vascular resistance.

60. **(New)** The method of claim 58, wherein the agent is administered continuously or frequently during the period of acute renal failure.

61. **(New)** The method of claim 60, where the period of acute renal failure lasts from one to three weeks.

62. **(New)** The method of claim 58, wherein the acute renal failure is characterized by a deterioration of renal function over a period of a few days.

63. **(New)** The method of claim 58, wherein serial determination of serum creatinine in said mammal indicates a rate of increase in serum creatinine exceeding 100/mg/dL/day.

64. **(New)** The method of claim 58, wherein the mammal is afflicted with osteodystrophy.

65. **(New)** The method of claim 58, wherein the mammal requires continuous hemodialysis

sessions.